

WHAT IS CLAIMED IS

1. A transfer ribbon comprising a substrate, a relief layer having a surface configuration of relief patterns and a reflection layer, wherein the substrate, the relief layer and the reflection layer are disposed on the substrate in this order, and the relief layer comprises an ionizing radiation-cured resin.
2. A transfer ribbon according to claim 1, wherein a peelable layer comprising the substantially same ionizing radiation-cured resin as that of the relief layer is further disposed between the substrate and the relief layer.
3. A transfer ribbon according to claim 2, wherein the peelable layer further comprises a thermoplastic resin.
4. A transfer ribbon according to claim 3, wherein the peelable layer comprises 90 to 99.9 % by weight of the ionizing radiation-cured resin and the 0.1 to 10 % by weight of the thermoplastic resin.
5. A transfer ribbon according to claim 3, wherein the thermoplastic resin comprises at least one resin selected from the group consisting of polyester resins and copolymer resins containing a monomer unit derived from vinyl chloride and/or vinyl acetate.
6. A transfer ribbon according to claim 1, wherein a heat resistant layer is disposed on the opposite side of the substrate to the side

having the relief layer.

7. A transfer ribbon according to claim 1, wherein an adhesive layer is further disposed on the reflection layer.

8. A method for production of a transfer ribbon comprising a substrate, a relief layer having a surface configuration of relief patterns and a reflection layer, the relief layer and the reflection layer being disposed on the substrate in this order, comprising steps of:

(a) forming a relief forming layer comprising an ionizing radiation-curable resin on the substrate,

(b) forming a surface of the relief forming layer into the relief patterns,

(c) converting the relief forming layer to the relief layer by irradiating and curing the relief forming layer with an ionizing radiation, and

(d) forming the reflection layer on the relief layer

9. A method for production of a transfer ribbon according to claim 8, wherein a peelability-potential layer comprising the substantially same ionizing radiation-curable resin as that of the relief forming layer and a thermoplastic resin is formed on the substrate prior to the step (a), the relief forming layer is formed on the peelability-potential layer in the step (a), and the peelability-potential layer is converted to a peelable layer as well as conversion from the relief forming layer to the relief layer

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by irradiating and curing the peelability-potential layer and the relief forming layer with an ionizing radiation in the step (c).

10. A method for production of a transfer ribbon according to claim 8, wherein the ionizing radiation is an ultraviolet ray substantially having a wavelength only in a range longer than 300 nm.

11. An image expressing medium comprising a support, a color layer and plural dots of relief hologram and/or diffraction grating, the color layer and the dots being disposed on the same surface of the support, wherein the dots has a layered structure comprising a reflection layer and a relief layer having a surface configuration of relief patterns, the each dot has an area in a range from 0.0001 to 0.09 mm², and has a diffraction direction different from that of at least one of adjacent dots or two or more sections each of which has a diffraction direction different from each other.

12. An image expressing medium according to claim 11, wherein two or more kinds of the dots different in area are present.

13. An image expressing medium according to claim 11, wherein the dots are arranged with a gradient in a density of the dots.

14. A method for production of an image expressing medium comprising steps of:

providing a support provided with a color layer disposed on a surface of the support,

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providing a transfer ribbon in which a relief layer having a surface configuration of relief patterns and a reflection layer are disposed on a substrate in this order, and the relief layer comprises an ionizing radiation-cured resin,

subjecting the support to thermal transfer with the use of the transfer ribbon by means of a thermal head to form plural dots of relief hologram and/or diffraction grating on the same surface where the color layer is disposed on so as that the each dot has a layered structure comprising a reflection layer and a relief layer, and has an area in a range from 0.0001 to 0.09 mm^2 , and has a diffraction direction different from that of at least one of adjacent dots or two or more sections each of which has a diffraction direction different from each other.

15. A method for production of an image expressing medium according to claim 14, wherein the transfer ribbon further comprises a peelable layer which is disposed between the substrate and the relief layer, and comprises the substantially same ionizing radiation-cured resin as that of the relief layer.

16. A method for production of an image expressing medium according to claim 15, wherein the peelable layer further comprises a thermoplastic resin.

17. A method for production of an image expressing medium according to claim 16, wherein the peelable layer comprises 90 to 99.9 % by weight of the ionizing radiation-cured resin and the 0.1 to 10 %

by weight of the thermoplastic resin.

18. A method for production of an image expressing medium according to claim 16, wherein the thermoplastic resin comprises at least one resin selected from the group consisting of polyester resins and copolymer resins containing a monomer unit derived from vinyl chloride and/or vinyl acetate.

19. A method for production of an image expressing medium according to claim 14, wherein the transfer ribbon further comprises a heat resistant layer disposed on the opposite side of the substrate to the side having the relief layer.

20. A method for production of an image expressing medium according to claim 14, wherein the transfer ribbon further comprises an adhesive layer disposed on the reflection layer.